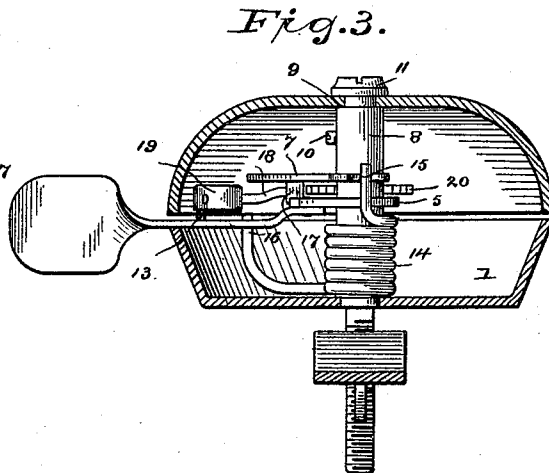
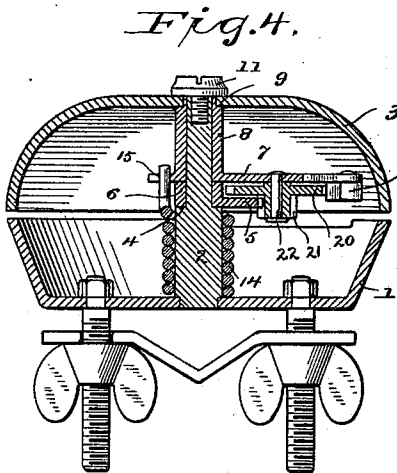
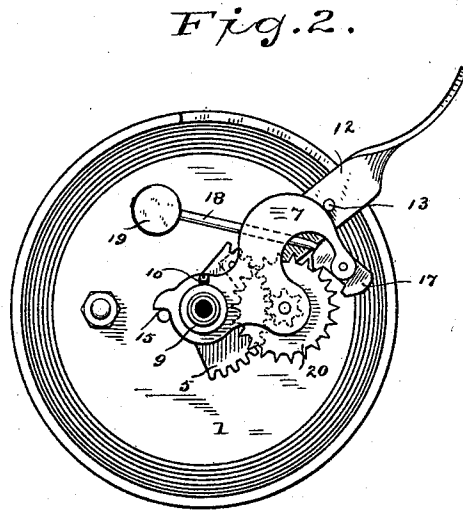
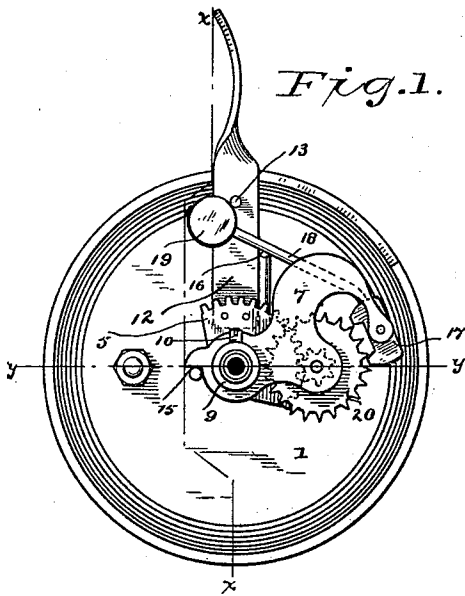


(No Model.)

A. MORTON.
BICYCLE BELL.

No. 480,026.

Patented Aug. 2, 1892.



WITNESSES

H. A. Lamb
Jessie Mason

INVENTOR

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UNITED STATES PATENT OFFICE.

AUGUSTUS MORTON, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE
BRIDGEPORT BRASS COMPANY, OF SAME PLACE.

BICYCLE-BELL.

SPECIFICATION forming part of Letters Patent No. 480,026, dated August 2, 1892.

Application filed February 29, 1892. Serial No. 423,213. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS MORTON, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Bicycle-Bells; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to the class of alarm-bells used upon bicycles and for various analogous purposes, and has for its object to simplify and cheapen the construction and at the same time to greatly improve the operation in use, it being desirable to avoid the use of winding-springs, to reduce the number of parts, to insure that the bell be struck the instant the operating-lever is moved, and that the blows of the hammer continue so long as the lever is moved, and also that contact of the hammer with the bell, "chiming," as it is ordinarily called, be absolutely prevented when the lever is at its normal condition, and it is furthermore absolutely essential that the mechanism be reliable and durable.

With these ends in view I have devised the simple and novel construction which I will now describe, referring by numbers to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view of the operative parts of the mechanism in their normal position, the bell being removed; Fig. 2, a similar view, the hammer being about to strike a blow; Fig. 3, a section on the line *x x* in Fig. 1, looking toward the right, showing all the parts of the bell; and Fig. 4 is a section on the line *y y* in Fig. 1, looking toward the top.

1 denotes the base, 2 a standard projecting upward therefrom, and 3 the bell. The upper end of the standard is reduced, leaving a shoulder 4, upon which a segment-gear 5 rests. This segment-gear is provided with a sleeve 6, so as to give ample bearing on the standard, on which it turns freely. Above sleeve 6 is a plate 7, provided with a sleeve 8, the upper end of which is reduced, leaving a shoulder 9. Sleeve 8 is locked against rotation on the

standard by means of a set-screw 10. The bell, which is of ordinary construction, is provided with a central opening through which the standard and the upper end of sleeve 8 pass, the bell resting on shoulder 9 and being locked in position and the parts secured together by a screw 11, engaging the end of the standard. 12 denotes the operating-lever, which is made integral with or rigidly secured to the segment-gear 5, and is provided with a stop-pin 13, the purpose of which will be presently explained.

14 is a spring of any suitable construction, the action of which is to hold the operating-lever in its normal position.

In the drawings I have shown a coil-spring surrounding the standard, one end of which is bent upward to bear against plate 7, as at 15, the other end being bent upward to bear against the operating-lever, as at 16. The shape of plate 7 is of course not of the essence of my invention. At the outer end of said plate is pivoted a verge 17, and extending outward from said verge is the shank 18 of the hammer 19.

20 is an escape-wheel, and 21 a pinion made integral therewith or rigidly secured thereto, said escape-wheel and pinion being journaled on a stud 22, extending downward from plate 7. The pinion is engaged by segment-gear 5 and the gear-wheel engages the verge, so that movement of the operating-lever, which is rigidly secured to the segment-gear, will vibrate the verge and hammer while the operating-lever is moving, it necessarily resulting that the blows of the hammer upon the bell will commence the instant the lever begins to move and will continue so long as the lever is moved in either direction. When the lever is in its normal position, as in Fig. 1, stop-pin 13 is in such a position that the hammer will rest against it and cannot possibly come in contact with the bell, thus wholly preventing the so-called "chiming," which is such a serious objection to many of the bells of this class now in use. The instant the lever begins to move, however, pin 13 passes out of the way of the hammer and allows the latter to strike the bell freely.

It will of course be understood that the va-

rious details of construction may be greatly changed without departing from the principle of my invention.

I claim—

- 5 1. The combination, with the standard, bell, and hammer, of the operating-lever having a stop 13, against which the hammer normally rests, the segment-gear, a verge to which the hammer is attached, a pinion engaging the
10 segment-gear, and an escape-wheel connected to the pinion and engaging the verge, so that movement of the lever in either direction will cause the hammer to strike the bell, the stop acting to hold the hammer out of contact with
15 the bell until the lever is moved.

2. The combination, with the bell and hammer, of the operating-lever, connections intermediate the operating-lever and the hammer which vibrate the latter when the lever is moved, a spring acting to return the lever to 20 position, and a stop upon the lever, which is normally engaged by the hammer to prevent the latter from striking the bell.

In testimony whereof I affix my signature in presence of two witnesses.

AUGUSTUS MORTON.

Witnesses:

S. A. BIRDSEYE,
EDW. F. SANDERS.